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ABSTRACT

This paper examines the traditional approach used by most students to meet the admission requirements of four-year colleges and universities and argues that the approach is not working for minority students, including American Indian, Black, and Hispanic students and members of families of low-income backgrounds. It is suggested that a better means for meeting admission requirements and increasing eligibility rates is a program termed "concurrent enrollment," in which high school students attend a community college or university before high school graduation. Findings of a concurrent enrollment effort at the University of California Los Angeles (UCLA) are reported. A successful concurrent enrollment effort depends upon the degree of perception, expertise, and ability to generate trust that the program staff possesses. The academic performance and the retention rate of a set of minority concurrent enrollment students of UCLA are compared to those of other students at the campus. Retention rates for concurrent enrollment students were higher than rates for other minority students in most instances. (Eight references) (JDD)

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CONCURRENT ENROLLMENT: ITS EFFECT ON UNDER-ACHIEVING MINORITY HIGH SCHOOL STUDENTS AND THEIR RETENTION RATE AT A PREDOMINATELY WHITE UNIVERSITY*

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UCLA

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INTRODUCTION/PURPOSE

Four-year colleges and universities have early academic outreach programs which seek to increase the percent of minority and low-income students that are meeting their admission requirements. By "minority", we refer to American Indian, Black, Hispanic, and members of families of low-income backgrounds.

With this in mind, the primary purpose of this work is to discuss concurrent enrollment and its relevance to two interrelated "issues". Concurrent Enrollment denotes the fact that high school students can attend a community college or university before they graduate. The two "issues" are: (1) how can early academic outreach programs help increase the percent of minority students that are meeting university admission requirements (and with better preparation), and (2) can these programs help decrease the persistent gap that exist between the college eligibility rates of minority and non-minority students. What follows briefly overviews the traditional approach that most students use to meet the admission requirements of four-year colleges and universities; here it is argued that the approach is not working for minority students. Next, an alternative is advanced as a better mean by which minority students can meet the admission requirements of four year colleges and universities as well as increase their eligibility rate. The alternative is concurrent enrollment.

Concurrent enrollment and minority student academic achievement are then discussed, and this is followed by the findings of a concurrent enrollment effort covering the period Summer 1988 to June 1989. The fifth section outlines the essential factors of a successful concurrent enrollment effort: they are perception, expertise, and trust. A secondary, though important purpose of this paper comprises its penultimate. This section compares the academic performance and the retention rate of a set of minority concurrent enrollment students of UCLA to those of other students at the campus. In a number of instances, the performance and retention rate of the minority concurrent enrollment students is found to be as good as and better than that experienced by their better prepared peers. Finally, there is the summary.

TRADITIONAL APPROACH TO UNIVERSITY ELIGIBILITY AND MINORITY STUDENTS

The university eligibility rates for minority and non-minority students differ significantly. For example, the California Postsecondary Education Commission (CPEC) eligibility study of 1983 public high school graduates found that a primary barrier to participation of minority students in postsecondary education is the disproportional low rate at which these students attain University of California (UC) and California State University (CSU) eligibility. Table 1, which follows, illustrates the size of the problem (1).

TABLE 1

1983 Eligibility Rates for California Public High School Graduates (Percent)

Segment	Indian	Asian	Black	Hispanic	White	Total
CSU	-----	26.9	3.6	4.9	15.5	13.2
CSU	-----	49.0	10.0	15.3	35.5	29.2

CPEC also conducted an eligibility study of the 1986 public high school graduates of California. The results of this study reveals that the eligibility rate for minority students continues to lag far below that of their non-minority counterparts (2). This lag is shown in Table 2.

TABLE 2

1983 Eligibility Rates for California Public High School Graduates (Percent)

Segment	Indian	Asian	Black	Hispanic	White	Total
CSU	-----	32.8	4.5	5.0	15.8	14.1
CSU	-----	50.0	10.8	13.3	31.6	27.5

In the main, the above eligibility rates pertain to high school students who have used the "traditional approach" to UC eligibility. This approach mostly entails taking high school courses and the required college admission tests. However, in order for a higher percentage of minority students to be qualified to enter UC and other four-year universities as regularly admitted freshmen, we need to go beyond the "traditional approach", because as we are well aware, it is not working for these students. Thus, another approach is needed if the eligibility rates of minority students are to be increased significantly. Such an approach does exist, and for the lack of a better term, it is called concurrent enrollment.

The Crux of Concurrent Enrollment

A primary benefit of concurrent enrollment is that it is a means by which under-achieving minority students can rapidly achieve university eligibility. This group of students is sizable, if the results of an analysis of the senior population of the Partnership Program can be generalized to the senior minority population of California and the nation in general. Partnership is an early academic outreach program at UCLA, and an analysis of the eligibility status of 820 of the program's seniors for the 1987-88 academic year, revealed that 172 (21%) did not meet UC's freshman admission requirements because:

> They had completed enough UC preparation courses with an admission grade point average (AGPA) of between 2.78 and 3.00, but their Scholastic Aptitude Test (SAT) or American College Test (ACT) scores were not high enough to make them UC eligible; or,
>
> They had complete enough UC preparation courses but their AGPA was between 2.50 and 2.77, which meant that they were not UC eligible, regardless of their test scores (3).

Assuming high school graduation, the freshman admission requirements of UC dictate the completion of a minimum number of college preparation courses with an AGPA within a certain range and the completion of a college admission test score at an appropriate level. Any high school program which seeks to increase the university eligibility rate of minority students should encourage them to focus their energies on those admission criteria over which they have the greatest amount of control, and which rapidly increase their chances of being regular admissible students in a relatively short time--within a year, for example. The choice of control narrows to test scores, course selection and completion, and AGPA.

With respect to test scores, it is reported by the College Board that, on average, most students who take the SAT a second time will increase their score from 30 to 40 points (4). The Board also reports that "... in the case of the SAT, an appreciable rise is unlikely (after repeated testing)" (5). Thus, it seems that students have little control over increasing their SAT score by twenty percent of their group's state average.

For the ten-year period 1976 to 1985, the average SAT score for minority students in California was 793 points (6). Assuming that this average has inched up to 800 points over the past four years, the 172 students mentioned above would need an admission GPA of approximately 3.1225 to be UC eligible. However, via the earlier analysis, we know that this was not the case. Also, these students would not be UC eligible even if we are generous and assume that they had SAT scores of 970 points. The difficult position which they face, with respect to UC eligibility, is demonstrated even further when a sub-set of this population was examined. An AGPA of 2.89, which requires an SAT score of 1340, was calculated for a random sample of thirty of these students. Students with SAT scores of 1340 are among the top five percent of the test-takers in the nation and this score is well beyond the grasp for the population under discussion.

Overall, it seems that the minority students of this population would be better served if they were advised to concentrate their energies on the admission criteria' of the number of courses completed and their admission GPA. Concentrating one's energies on these admission criteria is the crux of concurrent enrollment. This approach takes as given an SAT score of 710 and assumes that the population shall acquire the necessary AGPA of 3.16. See Attachment 1 for UC's freshman admission requirements.

CONCURRENT ENROLLMENT AND MINORITY STUDENT ACADEMIC ACHIEVEMENT

Does concurrent enrollment work; is it a means by which under-achieving minority students can rapidly achieve UC eligibility? The academic performance of a set of Partnership under-achievers who engaged themselves in concurrent enrollment have been analyzed to answer this question.

Results of Partnership's Concurrent Enrollment (Summer 1988 to June 1989)

Partnership's concurrent enrollment effort for this period began in late Summer, 1987. At this time, a review of the academic performance of the program's 10th graders for the academic year 1986-87 was undertaken; this review centered on their academic performance during 1986-87. The goal was to identify those students who could most benefit from concurrent enrollment beginning Summer, 1988. Once the 1987-88 school year started, academic data on the program's participants was collected and analyzed regarding their academic performance for Summer, 1987 and for the first semester of the 11th grade. At this time, an in-depth analysis of the academic data was undertaken with respect to courses completed and admission GPA, after which it was determined which students would definitely be offered concurrent enrollment beginning Summer, 1988. It is very important to note that the targeted students needed to meet only one criteria: they stood a chance of meeting UC's admission requirements. There was no other criteria--no tests for psychological or aptitude soundness were administrated.

Some 256 students from 23 high schools were targeted for concurrent enrollment, and between 70 and 80 attended a community college during Summer, 1988. These students took one or two of the following community college subjects: United States History, Political Science, Speech, Psychology or Sociology; a few took a foreign language or a laboratory science, and none took mathematics. It warrants mentioning that some students took both community college and high school summer classes, and that some continued to do as much during their senior year. The community college classes which they took were equal to high school Honors or Advancement Placement (AP) courses. This meant that any grade of "C" or better is treated as one grade higher for UC admission purposes. Additionally, each course completed with a grade of "C" or better could be used for university credit while sufficing with one, two, or even four years of the high school courses necessary to meet UC's admission requirements. What this meant is that to the degree that students were successful in obtaining "C" grades or better, they were rapidly increasing their chances of meeting UC's admission requirements in a summer session of only six weeks.

Twenty-one of the students who took community college courses during summer, 1988 were chosen at random for follow-up. An extensive review of their course performance with respect to UC eligibility was undertaken at the following points: Fall, 1987; Spring, 1988; Summer, 1988; Fall, 1988; and Spring, 1989. The results of the review are as follows:

Average Number of Honors Courses Completed

Fall 87	Spring 88	Summer 88	Fall 88	Spring 89
.38	.76	3.33	3.91	4.78

Admissions GPA (AGPA) of 3.00 or greater

Fall 87	Spring 88	Summer 88	Fall 88	Spring 89
1(4.8%)	5(23.8%)	13(61.9%)	13(61.9%	14(66.7%)

Average Admissions GPA (AGPA)

Fall 87	Spring 88	Summer 88	Fall 88	Spring 89
2.71	2.78	2.98	3.10	3.09

Admissions GPA (AGPA) Distribution

	Less Than 3.00	3.00 To 3.09	3.10 To 3.19	3.20 To 3.29	3.30 & Over
F, 87	20(96%)	1(5%)	0(0%)	0(0%)	0(0%)
Sp' 88	17(81%)	3(14%)	1(5%)	0(0%)	0(0%)
S' 88	13(62%)	5(24%)	3(14%)	0(0%)	0(0%)
F' 88	8(38%)	1(5%)	5(24%)	5(24%)	6(29%)
Sp' 89	7(33%)	3(14%)	1(5%)	5(24%)	5(24%)

The average SAT score for the 21 students was 819. Of the 21 students, 11(51%) met UC's eligibility requirements at the conclusion of the 12th grade. Given the level of their academic achievement at the start of the 11th grade, the eligibility rate of this population was significantly higher than what one would expect.

ESSENTIAL FACTORS FOR A CONCURRENT ENROLLMENT EFFORT

In order to be successful, concurrent enrollment requires a great amount of advisement with respect to specific course selection. This type of advisement is effective when provided by program staff which is knowledgeable with the admission process of universities. However, advisement of this type can cause friction, especially if it differs from that which is provided by counselors and/or college advisors. Here, the advice of program staff could be taken as an attack upon the professional integrity of counselors and/or college advisors, while in reality this is not the case. In essence, differing views regarding course selection can lead to less cooperation, which can seriously impede the success of concurrent enrollment. **THUS, A PARAMOUNT TASK OF PROGRAM STAFF IS TO ELICIT THE COOPERATION OF COUNSELORS AND COLLEGE ADVISORS.**

Over the past six years, I have found that specific factors, with particular leanings, seem to facilitate the implementation and continuation of concurrent enrollment efforts. These factors are perception, expertise, and trust.

Perception

Success is firstly dependent upon the perception of program staff. It is essential that staff have a perception that independent of gender or social/economics status that under-achieving minority students can achieve at much higher levels than what has been the case. As an occurrence, staff should epitomize the personification of high academic achievement at all times--to students, to parents, to school personnel, and to the community in general. When this is the case, the success of concurrent enrollment is enhanced.

Expertise

Whereas perception pertains to a state of mind, expertise regards objectivity. Specifically, staff expertise should entail an excellent grasp of admission requirements, admission working rules, and the freshman evaluation process. Undergraduate admissions is the ideal place to acquire such expertise; this suggest that high school programs would be best served if they are part of undergraduate admissions. The acquisition of this knowledge is best obtained from the evaluation unit of undergraduate admission via freshman evaluation training, freshman evaluating, and a constant review of the academic data of program participants. Also, staff need to have a clear understanding of the high school graduation requirements of the schools which they service. Further, it is vital that staff have longevity-- as with three years of experience or more.

Trust

Concurrent enrollment is most effective when staff can obtain high levels of trust from counselors, college advisors, students, and parents.

In the case of counselors and college advisors, trust is related to the amount of cooperation which staff can establish with these actors. Here, trust (or the lack thereof) often turns around the point that counselor and college advisors are often reluctant to give permission for under-achieving students to engage in concurrent enrollment. Generally, this reluctance is most strong when approval to take two community college courses is sought. Here, reluctance turns on the point that if these students are not succeeding in their high school courses, what makes one suspect that they can handle the more demanding courses of a community college.

One effective means of establishing trust, given the issue of reluctance, is for staff to use "witnesses"--which refers to former under-achieving students who have successfully used concurrent enrollment. Another way to counter reluctance is to site successful concurrent enrollment or middle college efforts; this practice is especially useful when implementing concurrent enrollment and where "witnesses" are not readily available.

With respect to students and parents, trust is also important. Here, trust is necessary because of the manner by which concurrent enrollment fits into the admission process. For under-achievers, the primary aim of concurrent enrollment is to see them become eligible to attend four-year colleges and universities, and this is largely determined by what occurs within the admission evaluation process. This process is bound by specific working rules which are not mysterious, yet they are foreign to students and parents. When the evaluation process and its working rules are placed within the setting of an advisement meeting for students and parents of two hours duration, for example, it becomes evident why trust is necessary. As with counselors and college advisors, "witnesses" are a useful means for establishing trust.

As a rule, high degrees of perception, expertise, and trust suggest that staff can be highly confident in advising. However, staff should be careful so as not to appear arrogant or overbearing with their advisement as they interact with counselors, college advisors, students, and parents.

CONCURRENT ENROLLMENT AND MINORITY STUDENT RETENTION AT UCLA

Beyond the fact that concurrent enrollment is an excellent means by which under-achieving minority students can increase their university eligibility rate, the approach has at least one other attractive feature. It is a means associated with increased rates of retention among former under-achieving minority high school students who attend a highly selective public and predominately White (or non-minority) university.

It is assumed that colleges and universities prefer to retain and graduate students rather than have them dropout or be dismissed for academic difficulties. What this means is that higher levels of student retention are favored compared to its opposite.

The "... attrition of (minority) students from postsecondary education represents a major obstacle to the attainment of equal educational opportunity" (7). Although there is great ambiguity in the literature regarding the actual attrition rate, research suggests that from 10 to 40 percent of all students who enter college will drop out before degree completion, but for (minority) students the proportion is substantially higher, particularly in predominantly White schools (8).

Students drop out of college for many reasons; some are alterable and others are not. What does the literature say about which students will persist and which will drop out of college? Although there is disagreement about the relative importance of student characteristics associated with persistence, a great deal is known about which students are most likely to persist and which ones are at risk (9). Some student characteristics such as race and socioeconomic status have been associated with attrition rates (10); however, these variables are characteristics that students bring to postsecondary education and they are not subject to intervention in order to increase retention among minority students. On the other hand, Cross and Astin found that the most significant predictors of full-time persistence were students' past academic achievement as reflected by high school grades, SAT scores, college preparatory curriculum, and attendance at a four-year college (11). Also, it has been found that SAT scores and high school GPA are significant predictors of student attrition. For example, Holland found that those UCLA students with the highest levels of academic preparation are much less likely to drop out of college in academic difficulty than their peers with lower levels of academic preparation, and that almost one-third of the campus' 1983 Black freshmen with the lowest levels of academic preparation had dropped out of school for academic reasons by Spring, 1985 (12).

This evidence suggests the following relationship: higher levels of high school preparation (as reflected by SAT scores, GPA and college preparation curriculum) tends toward higher levels of retention. As shown earlier, concurrent enrollment is an effective means by which to significantly increase the high school preparation of under-achieving minority students. This increase raises the following important questions:

--- Is the percentage of concurrent enrollment students that continue at UCLA with GPAs of 2.00 (or greater) higher than that of other category of students at the campus?

--- How does the retention rate of concurrent enrollment students compare to that of other categories of UCLA students who have higher levels of high school preparation?

--- What does it mean if the retention rate of concurrent enrollment students compares favorable (or exceeds) that of their better-prepared peers? Does this suggest that high school minority programs can begin to see themselves as retention efforts and that they should focus more of their energies in the direction of concurrent enrollment or toward the implementation of middle colleges.

The following research examines the relationship between concurrent enrollment and minority retention at UCLA - a highly selective and predominately White public university. Please note, the research is preliminary and that further work is needed on this subject.

Over the past six years, numerous Partnership participants have been concurrent enrollment students, and a number of them have enrolled at UCLA. A review of Partnership's records was undertaken to determine which of the programs' participants had utilized concurrent enrollment and who had enrolled at UCLA as freshmen. Fifty-five students meet this criteria and they had enrolled at UCLA between Fall, 1984 and Fall, 1988. The Registrars' Office was asked to generate data on these students in the following areas--college curriculum self reported high school GPA and SAT scores.

TABLE 3

CONCURRENT ENROLLMENT STUDENTS AT UCLA (FALL 84 TO FALL 88) (HIGH SCHOOL PREPARATION)

TERM ENTERED UCLA	NUMBER STUDENTS		AVE. H/SCH GPA		AVE. SAT		AVE. SAT VERBAL
Fall 84	1		2.50		840		460
Fall 85	6		2.81		862		398
Fall 86	12	(A)	3.11		816	(D)	433
Fall 87	10	(B)	3.08	(C)	827	(E)	426
Fall 88	26		3.15		838		395
			AVERAGES				
Total Students	55		2.93		837		422

(A) = Grade point average calculated on 11 students; there was not data on one student.

(B) = Grade point average calculated on eight students; there was not data on two students.

(C) = SAT average calculated on nine students; there was no data on one student.

(D) = SAT Verbal calculated on nine students; there was no data on one student.

(E) = SAT Verbal calculated on nine students; there was not data on one student.

The data of Table 3 reveals that Partnership's concurrent enrollment population at UCLA increased significantly between Fall, 1984 and Fall, 1988 and that their SAT composite tended to fluctuate more that their GPA, which tended to rise.

Overall, their academic preparation is good, but when it is compared to that of other UCLA freshmen, it is among the lowest. Table 4, which follows and rank orders seven category of incoming UCLA freshmen with respect to their college preparation A-F gpa and SAT composite for the periods Fall 1984 to Fall 1987, reveals this fact (13).

TABLE 4

WEIGHTED AVERAGES HIGH SCHOOL A-F GPA AND SAT COMPOSITE FOR UCLA FRESHMEN FOR FALL 1984 AND 1987

CATEGORY	WEIGHTED A-F GPA F84 TO F87	WEIGHTED SAT F84 TO F87
NON-MINORITY (ASIAN/WHITE) NUMBER = 10,483	3.81	1150
AMERICAN INDIAN (REGULAR ADMITS) NUMBER 132	3.50	1008
MEXICAN AMERICAN (REGULAR ADMITS) NUMBER 1606	3.48	943
MINORITY (REGULAR ADMITS) NUMBER = 4,431	3.48	939
BLACK (REGULAR ADMITS) NUMBER = 1396	3.34	900
MINORITY (SPECIAL ACTION) AMER I, BLK, MEX-AMER NUMBER = 516	2.92	863
CONCURRENT ENROLLMENT AMER I, BLK, MEX-AMER NUMBER = 55	3.00	851

Source of data, except for CONCURRENT ENROLLMENT = Office of Budget, Institutional Planning and Analysis at UCLA.

Of the seven categories of freshmen student presented in Table 4, concurrent enrollment students ranked seventh overall and sixth in terms of weighted high school A - F GPA-- the only category which they slightly exceeded was the Minority (Special Action) group. Compared to the remaining categories of students, the concurrent enrollment GPA was statistically lower at a .05 significant level when subject to a difference of proportions test. When we look at the SAT composite, the

results were roughly the same. The SAT Composite for the Concurrent Enrollment students was statistically lower at a .05 significant level for all categories of students except for Minority (Special Action) and Black (Regular Admits).

The results of this comparison, if the literature is correct, suggests that once the category of students were enrolled at UCLA that their rank order should not change significantly from that of Table 4 in terms of academic performance, for example. In order to determine if this was true, the weighted percent of each category of students continuing at UCLA with a GPA of 2.00 or greater was determined for the period Fall, 1984 to Fall 1987; additionally, the weighted retention rate of each set of students was determined for the period Fall, 1984 to the end of Spring, 1989. Table 5 presents the results of this determination.

TABLE 5

WEIGHTED AVERAGE OF STUDENTS CONTINUING WITH GPA OF 2.00 OR GREATER FOR FALL, 1984 TO FALL, 1987, AND WEIGHTED AVERAGE RETENTION RATES FOR FALL, 1984 TO END OF SPRING, 1989.

	(1) NUMBER CONTINUING STUDENTS, AND % WITH GPA 2.00 OR GREATER	(2) NUMBER CONTINUING STUDENTS, AND RETENTION RATE
CATEGORY	F84 TO F87	F84 TO SP89
NON-MINORITY (ASIAN/WHITE)	9,204 92%	13,338 89%
CONCURRENT ENROLLMENT AMER I, BLK, MEX-AMER	44 91%	55 80%
AMERICAN INDIAN (REGULAR ADMITS)	95 85%	161 81%
MEXICAN AMERICAN AMER 1, BLK, MEX-AMER (REGULAR ADMITS)	1,047 81%	1,813 80.0%
MINORITY (REGULAR ADMITS) AMER INDIAN, BLACK, MEX-AMERICAN	2,560 80%	4,542 80%
BLACKS (REGULAR ADMITS)	757 75%	1,347 76%
MINORITY (SPECIAL ACTION) AMER I, BLK, MEX-AMER	421 68%	676 69%

(1): Source of data = Office of Budget, Institutional Planning and Analysis at UCLA.

(2): Retention rates for Spring 89 are estimates, excluding CURRENT ENROLLMENT.

Table 5 reveals that the rank order for the concurrent enrollment student changed significantly from that of Table 4; in Table 4 they were ranked seventh and in Table 5 their rank is second. The ranking of the remaining category of student's of Table 5 are the same as what is found in Table 4 and this is in line with what the literature suggest. The table reveals that the percent of Concurrent Enrollment students continuing with a GPA of 2.00 or greater was 91%, which was

higher than that of all categories of students except for Non-Minority (Asian/White). The difference between Concurrent Enrollment students, and Minority (Special Action), Mexican-American (Regular Admits), Black (Regular Admits) and Minority (Regular Admits) was found to be statistically significant at the .05 level when subject to a difference of proportions test. The percent for Concurrent Enrollment students is shown to be higher than that of American Indian (Regular Admits); however, due to the lack of an adequate number of cases, the difference was not confirmed to be statistically significant.

The table further shows that the retention rate for Concurrent Enrollment students was 80.0%, which was found to be significantly different at a .05 level than that of Minority (Special Action) students whose retention rate was 69%. The difference in the retention rate of Concurrent Enrollment students and Blacks (Regular Admits), who had a retention rate of 76%, appears to be significant. Nevertheless, the difference was not confirmed statistically due to the limited number of concurrent enrollment cases. For the remaining category of students, there appears to be no difference in their retention rates and that of Concurrent Enrollment students. Given the literature on academic performance and retention, the ranking of the Concurrent Enrollment students in Table 5 indicates that their performance is much higher than what one would expect.

SUMMARY

Here, the underlying premise is the idea that concurrent enrollment efforts should be utilized more than has been the case in order to increase the eligibility rate of under-achieving minority students. The population which can benefit from concurrent enrollment is sizable. The results of research on 21 Partnership students plainly indicate that concurrent enrollment is an effective means for increasing the UC eligibility rate of under-achieving minority students. In particular, minority under-achieving students can significantly increase their number of university preparation courses and their admissions GPA by utilizing concurrent enrollment.

The literature suggests that the least-prepared students of universities should continue in academic difficulty at significantly higher rates and should have significantly lower retention rates than their better prepared peers. The academic preparation of UCLA's Partnership concurrent enrollment students was among the lowest (and was statistically different) from that of their freshmen peers. However, the findings were that the concurrent enrollment minority students are at least as successful as their better-prepared peers in a number of instances.

What can be concluded from the findings? Although college performance and retention is often viewed as a simple matter of academic ability, many factors other than scholastic talent influence educational attainment. One such factor, on which little research has be conducted, is a successful high school-to-college transition (14) and for concurrent enrollment students, I suspect that this is the case. Here, a successful high school-to-college transition turns on the notion of perception. Not only is concurrent enrollment a means by which secondary school students can earn college credit, it is also an avenue by which all under-achieving students can raise their perceptions of what is possible--for themselves. In effect, concurrent enrollment and its more nature counter-part of middle-colleges allows students to enjoy academic success in a college setting which raises their self-esteem, confidence, and perception with respect to their academic abilities and future potential before they are regular college students. Their demonstrated success in community college suggests to them (and their parents) that they have the physical and mental capability to handle the academic requirements of a four-year university.

Second, the findings--which are based on the achievement of a limited number of concurrent

enrollment students--suggest that high school minority programs can indirectly effect the achievement and retention of minority students at predominately White universities. This indirect effect, if the findings are correct, is to be found in the practice of concurrent enrollment.

UC Freshman Admission Requirements

To be eligible for admission to the University as a freshman, students must meet the Subject Requirement, Scholarship Requirement, and Examination Requirement described on this page

Subject Requirement

To satisfy this requirement, students must have successfully completed a specific sequence of high school courses in the subjects listed below.

These required high school courses are often called the "a-f subjects." To be accepted by the University, they must appear on a list certified by the high school principal as "Courses to Meet Requirements for Admission to the University of California."

It will take *15 units of high school work* to complete the Subject Requirement. Also, at least *7 of the 15 units* must have been earned in courses taken during the last two years of high school.

It is beneficial to students to complete more than the required 15 units of academic work. The following is a list of required and recommended subjects to be taken in grades 9 through 12:

a-f Subject Requirements

(Please see the other side of this sheet for detailed information.)

a. **U.S. HISTORY/GOVERNMENT**
(One year required)

b. **ENGLISH:** Composition, literature, etc.
(Four years required)

c. **MATHEMATICS:** Elementary Algebra, Geometry and Intermediate Algebra
(Three years required; four recommended)

d. **LABORATORY SCIENCE:** Biology, chemistry, physics, etc.
(One year required; three recommended)

e. **FOREIGN LANGUAGE:** Spanish, French, etc.
(Two years of the same language required; three recommended)

f. **COLLEGE PREPARATORY ELECTIVES:** History, English, advanced mathematics, laboratory science, foreign language, social studies, and visual and performing arts.
(Four years required)

Scholarship Requirement

In calculating an applicant's grade-point average for admission, the University will use only the grades earned in the "a-f" courses taken in grades 10 through 12. These grades are counted as follows: A = 4 points, B = 3 points, C = 2 points, D = 1 point, and F = 0 points.

The grades earned in a-f subjects taken in the 9th grade or earlier will not be used to calculate the grade-point average for admission. However, these courses will be used to meet the Subject Requirement, if they are completed with grades of "C" or higher.

Any a-e course in which you received a grade of "D" or "F" must be repeated with a C grade or higher or, in sequential areas of mathematics, chemistry, and foreign language *only*, validated by successful completion of advanced coursework.

The grades earned in the required third year of mathematics (intermediate algebra) will be used only if they improve the applicant's grade point average.

Two of the four units in elective courses used to satisfy the "f" requirement must be completed with a grade of C or higher, and all four units must be accepted by the high school for graduation. The best grades earned in any two of these units taken in grades 10 through 12 will be used in computing the applicant's grade-point average for admission.

The grades earned in up to four units of work in courses that are (1) certified by the high school as offered at an honors level, and (2) taken in the last two years of high school will be given extra weight in computing the grade-point average for admission. Grades in honors courses will be counted as follows: A = 5 points, B = 4 points, and C = 3 points.

To be counted, these grades must have been earned in honors courses in history, English, advanced mathematics, laboratory science, and foreign language. Courses in these subjects that prepare students for The Advanced Placement Examinations of The College Board are examples of honors courses.

Examination Requirement

All freshman applicants must submit test scores, as described below.

1. One aptitude test, either a or b:
   a. Scholastic Aptitude Test (SAT)
      Verbal and mathematics scores on this test must be from the same sitting.
   b. American College Test (ACT)
      The composite score will be reported
2. Three College Board Achievement Tests (ACH)
   These must include (a) English composition; (b) Mathematics, Level 1 or 2; and (c) one test from English literature, foreign languages, sciences, or social studies.

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a-f GPA	ACT[1] Composite	SAT[2] Total
2.78	35/36	1600
2.79	35/36	1580
2.80	34/36	1550
2.81	34/36	1530
2.82	33/34	1510
2.83	33/34	1480
2.84	33/34	1460
2.85	32/33	1440
2.86	32/33	1410
2.87	32/33	1390
2.88	31/32	1370
2.89	31/32	1340
2.90	30/31	1320
2.91	30/31	1300
2.92	29/30	1270
2.93	29/30	1250
2.94	28/29	1230
2.95	28/29	1200
2.96	27/28	1180
2.97	27/28	1160
2.98	26/27	1130
2.99	26/27	1110
3.00	25/26	1090
3.01	25/26	1060
3.02	24/25	1040
3.03	24/25	1020
3.04	23/24	990
3.05	22/23	970
3.06	21/22	950
3.07	21/22	920
3.08	20/21	900
3.09	19/21	880
3.10	18/20	850
3.11	18/20	830
3.12	17/19	810
3.13	16/19	780
3.14	15/18	760
3.15	14/17	740
3.16	14/17	710
3.17	13/17	690
3.18	12/16	670
3.19	11/15	640
3.20	10/14	620
3.21	9/14	600
3.22	9/14	570
3.23	8/13	550
3.24	8/13	530
3.25	7/12	500
3.26	7/12	480
3.27	6/11	460
3.28	6/11	430
3.29	5/11	410
3.30	5/11	400

[1]ACT is scored in intervals of 1 point, from a minimum of 1 to a maximum of 35 or 36. Use the first score listed if you take the test prior to October 1989. Use the second score if you take the test October 1989 or later.

[2]SAT is scored in intervals of 10 points, from a minimum of 400 to a maximum of 1600.

REFERENCES

1. California Postsecondary Education Commission, "Eligibility of California 1983 High School Graduates For Admissions to the States Public Universities"; Sacramento, California (1984).

2. California Postsecondary Education Commission, "Eligibility of California 1986 High School Graduates for Admissions to the States Public Universities; Sacramento, California (1987).

3. Partnership Program 1987-88 Systemwide Report for Office of the President (University of California).

4. The College Board, "1988-1989 ATP Guide for High Schools and Colleges: SAT and Achievement Tests", p.8; Princeton, New Jersey; 1988.

5. Ibid; p.21.

6. The College Board, "State SAT Scores (1976 through 1985)", p.21; Princeton, New Jersey; 1985.

7. Clewell, Beatriz C. and Ficklen, Myra S., "Improving Minority Retention in Higher Education: A Search for Effective Institutional Practices", p.1; Educational Testing Service; Princeton, New Jersey; June 1986.

8. Ibid; p.1.

9. Ibid; p.2.

10. Ibid; p.3.

11. Ibid; p.3.

12. Holland, Morris K., "Black and White Freshmen Leaving UCLA In Academic Difficulty (Fall 1981 and Fall 1983 Entering Classes); Student Affairs Information and Research Office (UCLA); March, 1986.

13. In conducting the research, overlap and weighting was used. Overlap refers to the point that in certain instances, a sub-population cannot be separated from a larger population for purposes of analysis. For example, concurrent enrollment students are a sub-population of the larger population Minority (Regular Admits); however, for purposes of analysis the two populations could not be separated. This means that the analysis yields results for Minority (Regular Admits) which are lower than would be the case were concurrent enrollment students not included as part of the group.

    To conduct the research, it was necessary to use data on categories of student populations' whose size varied from one year to the next. This necessitated weighting. If the size of a category of students were exactly the same, we could take the mean of the population as the overall mean. Since this was not the case, it was necessary to weight each separate mean

by the number of students for a particular year and then sum, dividing finally by the total number of students.

14. Office of the President (University of California), Memo "REPORT ON UNDERGRADUATE RETENTION AND GRADUATION AT THE UNIVERSITY OF CALIFORNIA:, June 7, 1989.